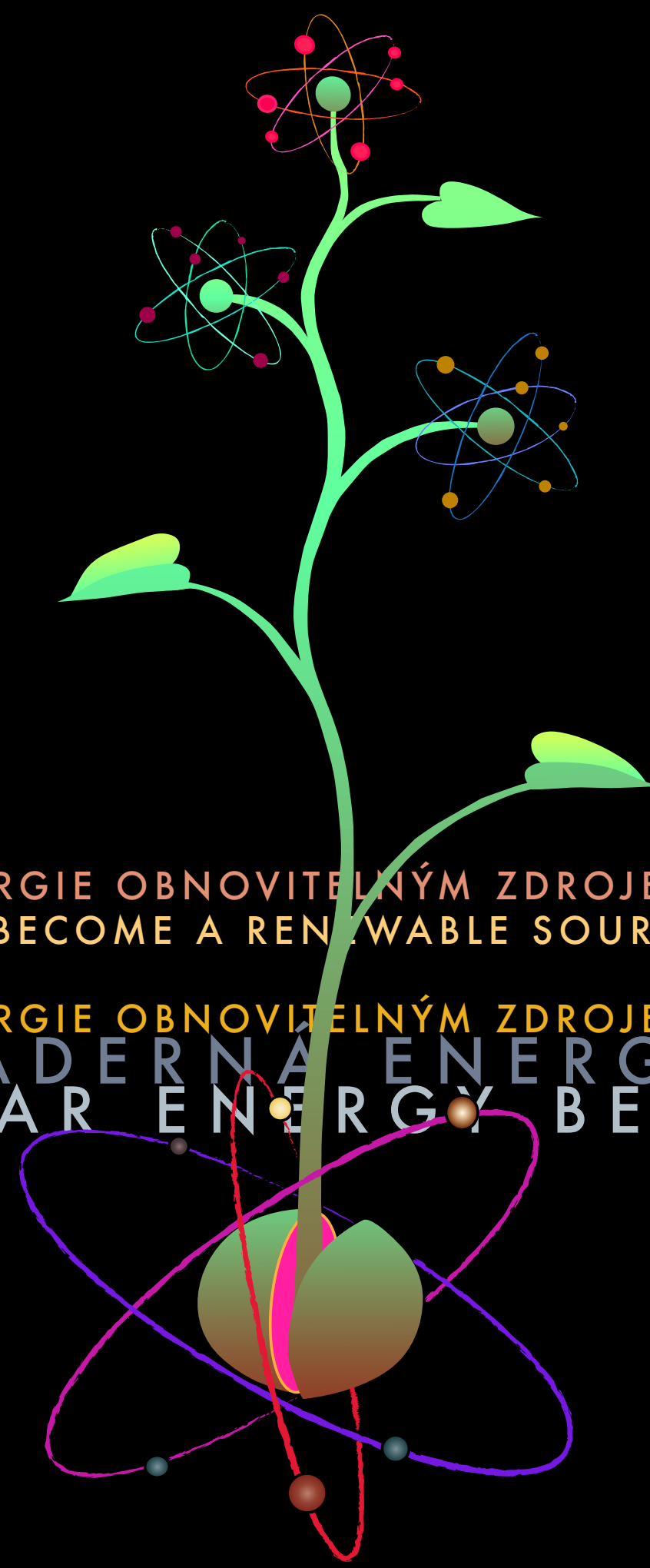




STANE SE JADERNÁ ENERGIE OBNOVITELNÝM ZDROJEM ? WILL NUCLEAR ENERGY BECOME A RENEWABLE SOURCE ?
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WILL NUCLEAR ENERGY BECOME A RENEWABLE SOURCE ?

November 11, 2009

Kaiserštejnský Palace, Prague 1
Malostranské náměstí 23

2nd Annual Conference on Nuclear Energy held under
auspices of the Ministry of Industry and Trade
of the Czech Republic



Jiri Marek is the consultant in the field of power industry and is the Head Executive of JMM Consulting, Ltd. – a company focused on advisory services and organization of professional activities. After graduating from the Czech Technical University, Faculty of Technical and Nuclear Physics, he worked in research; he has been working in the power industry field since 1974 (until 1996 in ČEZ). For the last sixteen years, he was the advisor of the Minister of Industry and Trade, chairman and vice-chairman of the Supervisory Board of ČEZ, a member of supervisory boards in several energy distribution companies and an advisor of Deputy Ministers of Finance. In these positions, he was dealing with the reorganization of state administration in power industry, the development of state energy policy, the establishment of the State Office for Nuclear Safety and with the preparation of the privatization of Czech power industry. He is occupied by publication activities, mainly in the field of nuclear power industry and has wide experience in organizing of international and specialized professional conferences and meetings. His positions are quoted on TV, radio and in economic periodicals.

Dear colleagues,

In November last year, we watched, with some surprise, the significant effects of a financial markets crisis and the predictions of their consequences for the whole economic system. In winter, we have realized the weakness of supply systems for the most relevant energy commodities. The world is turning upside down somewhat. Now we know that it is necessary to re-evaluate, to test, to experiment, to use our common sense ...

What we know most of all, however, is that never again will the development of economy and society run within the parameters and in the dimensions of previous years.

The fact that energy is among the most affected sectors is obvious. We are living in uncertain times. Our most current challenge, perhaps, is to find out what to do next. The current renaissance of nuclear energy is not a consequence of the phenomena of last year; it is a good and timely response to the need to address the question of safe and reliable electricity supply. Nuclear energy is predetermined to fulfill this goal, not only because it is a clean, environmentally friendly and non-carbon technology, but also because its future development is based on new advanced technologies. All of this was discussed at the NERS 2009 conference.

I am personally very pleased that we succeed to prepare a program involving up to date issues and to obtain a top and competent speakers for their presentation; and generate the necessary discussion of all concerned as well. I believe that the conference NERS 2009 met your expectations, and we look forward to meeting you on the next the 3rd Annual Conference on Nuclear Power NERS 2010 in Prague.

A handwritten signature in blue ink, appearing to read "Jiri Marek".

Jiří Marek
NERS Chairman

Prague, November 11, 2009

CONFERENCE PROGRAM

morning session

NUCLEAR ENERGY • ATTITUDES • OPINIONS • FACTS • FEELINGS



Zdeněk HRUBÝ Economist and Teacher, Institute of Economic Studies, Faculty of Social Sciences of the Charles University, member of the Supervisory Board of ČEZ, a.s., Chairman of the Morning Session

conference opening

Zdeněk Hrubý graduated from the ČVUT, Faculty of Electrical Engineering in Prague, specialization cybernetics, and later obtained a Ph.D. in economics. He was the director of the Prognostic Institute of the Czech Academy of Sciences and worked at universities and research institutes in Germany and Great Britain. During his career, he held the positions of the Deputy of the Vice Prime Minister for economic policy, the international team leader for the valuation of the completion of NPP Temelín, the Czech Government Commissioner responsible for the World Bank and the IMF Annual Meeting in Prague, and the Deputy Minister of Finance. In recent years, he has been working as a member of a number of boards of large companies and bodies (e.g. Chairman and Member of the ČEZ Supervisory Board, Member of the Board of Directors, European Investment Bank and European Investment Fund, Member of the Scientific Board, Communications & Strategies). Currently, he is active in the field of theory of regulation and in network industries economics; he is also a lecturer and researcher at the Institute for Economic Studies and MERO Chair. Mr. Hrubý was the leader of several successful Himalaya expeditions; he climbed five peaks over 8000 m high.



Pavel ŠOLC Head of Advisors of the Minister of Industry and Trade of the Czech Republic

welcome address

In 1986 he graduated from the Czech Technical University, specialization Economics of Power Generation, and in 1992 from the University of Pennsylvania, specialization Modeling of Energy Systems. As a researcher he worked with ŠKODA Praha on the development of a new generation of conventional and nuclear power plants. In 1993 he started his career modeling electric power systems, designing of electricity market rules and developing long term strategies in the power sector, initially in ČEZ (Head of Strategic Planning and Analysis), and further in ČEPS (Czech Transmission System Operator, Director, System Trade Department, and Director, Corporate Strategy Department). His work during this period was focused mainly on cost/benefit analysis of new projects, analysis of operation, and study of impacts of liberalization on the resource structure of the power industry, analysis and design of auxiliary services market, pricing mechanisms for balancing market, and regulatory frameworks in the power sector in Czech Republic, the Slovak Republic and neighboring countries. He has been responsible for the development of the long term strategy of the Czech Transmission System Operator in an open electricity market environment. At present he is the chief-advisor to the Minister of Industry and Trade and is involved in the preparations of updated energy policy of the Czech Republic.



Ján ŠTULLER Ex-Chairman of the State Office for Nuclear Safety and former Assistant to the Director General of the International Atomic Energy Agency

SUSTAINABLE DEVELOPMENT AND NUCLEAR POWER RENAISSANCE – WHAT IS IT ABOUT – RELATED IAEA ACTIVITIES

- basic principles of the sustainable development, and its implementation problems
- is nuclear power to be a part of the sustainable development concept?
- three areas of relevant IAEA's activities: nuclear power, nuclear safety and technical cooperation

Mr. Stuller graduated from the Faculty of Nuclear Science and Physical Engineering (FJFI) of the Czech Technical University, where he received a M.Sc. in Nuclear Engineering 1982. After several years working in the Skoda Works (construction and commissioning of Czechoslovak NPPs) and in the Czechoslovak Atomic Energy Commission (inspector for nuclear safety), and after a special training in nuclear safety regulatory practices in U.S. NRC, Mr. Stuller was appointed the Chief Inspector and Chairman of the State Office for Nuclear Safety (SUJB) in January 1, 1993. In this position, which he held until 1999, he was responsible for the national regulatory framework in nuclear and radiation safety in the Czech Republic. From 1999 until 2008, Mr. Stuller continued his career in different positions at the International Atomic Energy Agency. As the Special Assistant for Scientific and Technical Affairs, he served as an advisor to the Director General of the IAEA and as the Head of the IAEA TC Europe Section, he coordinated the planning and implementation of the IAEA Technical Cooperation Programme in South East Europe and Central Asia. At present he provides technical support for nuclear facilities licensing as a special advisor to the Chairperson of the SUJB.



Miroslav ŠVÁB Director of the Nuclear Facilities Assessment Dept., State Office for Nuclear Safety

NUCLEAR SAFETY REQUIREMENTS – WHAT INFLUENCES THEIR CREATION AND WHAT ARE THE DRIVING FORCES OF THEIR IMPROVEMENTS

- the role of suppliers, operators and regulators in the creation of nuclear safety requirements
- public and the development of safety requirements
- influences of design standardization and requirements harmonization on Czech legislation

He graduated from the Faculty of Nuclear Science and Physical Engineering (FJFI) of the Czech Technical University, specialization Theory and Mechanisms of Nuclear Reactors in 1982. He participated in the construction of the university training reactor VR-1 as the employee of FJFI Department of Physics during 1983 – 1988. He joined the Czechoslovak Atomic Energy Commission in 1988 and passed the NPP Operator Training. He was the national IAEA IRS Coordinator; he was responsible for the inspection of research reactors and he coordinated research CSAEC projects in neutron physics and PSA. He was appointed Deputy Director of the SUJB nuclear safety department and in 1993, he studied at the Consejo de Seguridad Nuclear, focusing on the licensing of Westinghouse NPPs in Spain. After his return from Spain, he was appointed the NPP Licensing Manager in Temelín. Since 1998, he was the Director of Temelin NPP Licensing Department, since 1999 the Director of the Nuclear Facilities Assessment Department. He participated in many IAEA missions (IRRT – Slovenia, IRRS – Germany, OSART – Russia, Japan), he is a member of NUSSC, WGRNR OECD/NEA and RAMG EC.



Petr ZÁVODSKÝ Director of the Nuclear Power Plants Development Department, ČEZ, a.s.

DEVELOPMENT OF NEW NPPs IN ČEZ GROUP

- overview of the nuclear energy commitment to meeting electricity demand • nuclear power renaissance – challenges and possibilities
- ČEZ Group plans

He graduated from the Faculty of Electrical Engineering of the University of Transport and Communications in Žilina, specialization Communications and Security Equipment in Transport. After a short employment in the Czech Railways, in 1994 he commenced his professional career in the energy sector – on the Temelin NPP. He worked in the operating department and then in technical engineering as the project manager of the independent verification and validation of the I&C software. Since 2006 worked in the Division of Investment, first at the position of Head of the Technical Contract, and as of April 1, 2009 at the position of the Director of the Nuclear Power Plants Development Department.



Vítězslav JONÁŠ Senator, Vice-Chairman of the Committee on National Economy, Agriculture and Transport of the Senate of the Czech Republic

WHY TO ACCEPT THE NUCLEAR POWER – PUBLIC AND POLITICAL DEMAND

- politicians and their long-term responsibility for safe energy supply • nuclear energy as an acceptable way

After finishing the vocational school of machinery in Třebíč, Mr. Jonáš worked in ČKD Blansko (engineering works), participated for example in building the dam in Dalešice. Since 1979 he worked as a head of deliveries in Škoda Prague Company during the construction of the nuclear power plant Dukovany. In 1990 – 2006 served as a Mayor of Dukovany. Since 1991 he has been a member of the Civic Democratic Party where he held the post of the Chairman of the District Association of the Civic Democratic Party, member of the regional authority of Vysočina region and Chairman of the Committee on Regional Development. At present, besides his work at the Senate, Mr. Jonáš is a Deputy Mayor of Dukovany.



Irena ŠPENDLÍKOVÁ Master's degree student, Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University
co-authors: Jan KRMELA, Lubomír MAZAL, Jakub PANCHÁRTEK, Lukáš ZÁVORKA

outcome of the “student’s think-tank” on the theme:

**OKLO PHENOMENON – HOW TO LOOK ON NUCLEAR ENERGY IN THE LONG-TERM ENVIRONMENTAL IMPACTS
FRAMEWORKS? NATURAL REACTOR – OMITTED EVIDENCE OF NATURALNESS OF THE TRANSFORMATION PROCESSES
OF THE NUCLEAR ENERGY**

think-tank guidance and gestion:

Ivan BOHÁČEK Chief editor of Vesmír, scientific journal
Vítězslav DUDA Director, Radioactive Waste Repository Authority
Karel KATOVSKÝ Teacher, Faculty of Nuclear Sciences and Physical Engineering,
Czech Technical University, Secretary, Czech Nuclear Education Network (CENEN)
Jiří MAREK Consultant, NERS Chairman
Karel ŠTAMBERG Senior Scientist and Teacher, Faculty of Nuclear Sciences
and Physical Engineering, Czech Technical University
Dušan VOPÁLKA Vice Dean of the Faculty of Nuclear Sciences and Physical Engineering,
Czech Technical University



afternoon session

FUTURE OUTLOOK OF NUCLEAR ENERGY

- public and professional requirements on nuclear energy – solving energy demand
- clean, safe, reliable ...
- solving radioactive waste problem ...
- solving non-proliferation problems ...
- complying with requirements of sustainable development ... – what the research and development, together with the support of technology companies offer?
- advanced technologies – the way to the Generation IV



Petr OTČENÁŠEK Consultant, Chairman of the Afternoon Session

afternoon session opening

In 1962 he graduated from the Faculty of Applied and Nuclear Physics of the Czech Technical University, where he further obtained a Ph.D. and was appointed Associate Professor in Applied Nuclear Physics. The longest and most important part of his professional carrier he spent as a university lecturer and scientist; during the period of 1976 – 1980, he held the position of the Chair of the Applied Nuclear Physics Dept. He is the author of approx. 200 publications (including 12 textbooks for university students). In parallel he has working as a consultant in a number of projects in the field of nuclear technologies and energy strategies for Czech and foreign institutions, bodies and companies. He is a member of the Governmental Independent Energy Commission.





Ivo VÁŠA Vice-Chairman of the Board of Directors and Director of the Nuclear Power and Safety Division, Nuclear Research Institute Řež plc

STRATEGY OF NUCLEAR POWER FUTURE TOWARDS SUSTAINABILITY AND NUCLEAR RESEARCH INSTITUTE PARTICIPATION ON THE ADVANCED TECHNOLOGIES DEVELOPMENT

- actions proposed by the EC and Euratom to stimulate and implement the measures to prevent a possible energy crisis in the EU
- plans and activities in the Czech Republic and the Nuclear Research Institute which may significantly contribute to sustainable power

Ivo Váša graduated from the Czech Technical University, Faculty of Technical and Nuclear Physics in 1972, and he obtained a Ph.D. in Nuclear Facilities Construction in 1988. His carrier is connected exclusively with the Nuclear Research Institute in Řež – as a researcher, Chief of the Diagnosis and Measurement Dept. (since 1982), Director of the Nuclear Safety and Energy Division (since 1993) and Vice Chairman of the Board of Directors. He coordinates a number of projects, focusing on the safety aspects of NPP in the Czech Republic and related issues in the framework of international projects. Other projects include activities in radioactive waste deep repository, and the development of advanced generation of nuclear reactors. He participates in the work of a number of professional bodies, such as the Scientific Council of the Joint Research Centre EC – Institute for Energy, the Counseling Board of OECD/NEA-NDC and the EURATOM Advisory Board (Vice Chairman of the Board since 2007).



Jiří ŠEDIVÝ General of Army in reserve, former Chief of the General Staff of the Armed Forces of the Czech Republic

ADVANCED ECONOMIES AND THEIR SENSITIVITY TO SAFE AND RELIABLE ENERGY SUPPLY – HOW TO PERCEIVE THE NUCLEAR POWER

- independent economic growth and state sovereignty are deeply linked to energy sufficiency
- for the Czech Republic, nuclear energy is essentially the only possible long term alternative for energy independence

General Šedivý was the first Czech student at the US Army War College (Pennsylvania). After his graduation in 1994, he took over command of the 4th Rapid Reaction Brigade. In 1996, he was deployed to Bosnia as the Commander of the Czech Army Contingent in IFOR. In 1997-8, he was appointed as the Inspector of Ground Forces of the Czech Armed Forces. He subsequently became the Chief of the Combat Training Division of the General Staff of the Army of the Czech Republic. He assumed command of Ground Forces in 1997. On May 1, 1998, he was appointed Chief of the General Staff, with the responsibility for military defense of the Czech Republic, Armed Forces preparation and training. His main task was the preparation and implementation of military measures related to the accession to NATO. He retired on January 1, 2003. Subsequently, he founded his own advisory company “GENERALS” Ltd., working on defense and security projects, and worked in the supervisory bodies of several companies focused on defense matters. He is dealing with defense matters (2004 – 5 he was a consultant to the European Defense Integration project, done by the Center for Strategic and International Studies – Washington D.C.) and the protection of vital infrastructure of the state. A founding member of the Czech Euro Atlantic Council, he is regularly participating at conferences on security and defense matters and gives lectures at universities and for foreign partners.



ADDRESSING THE DEMAND FOR NUCLEAR ENERGY

Marco GRAZIANO Senior Executive Vice President, Business Development for AREVA Group

Marco Graziano graduated from the Genova University with a degree in mechanical engineering in 1982. He started his career at NIRA, contributing to the development of the Italian nuclear energy program. Thereafter, he pursued his career in power generation and, more recently, in transmission and distribution where he held various management positions in project management, sales and marketing in Europe, the United States, Asia, and the Middle East. From July 2005 to September 2008, he was Executive Vice President of the International Sales Organization and ExCom member of AREVA Transmission and Distribution and since then has been appointed Senior Executive Vice President, Business Development for the AREVA Group.



Othman SALHI Vice President, Business Development for AREVA International Marketing

Before joining AREVA in 1984, **O. Salhi** worked in the oil and petrochemical industry. Within the Projects and Engineering Division of AREVA NP he led several backfitting projects such as the 10 years safety upgrade of Tihange 1 NPP in Belgium. He was then responsible of auxiliary systems engineering and layout for the French 1500 MW NPP program. His first responsibilities in AREVA International Marketing dealt with Eastern European countries and countries of the former USSR. Until 2007, Mr Salhi was the Vice President for Asia within AREVA NP; currently, he holds the position of the Vice President, Business Development for AREVA International Marketing.



Look DADDY - GENERATION IV !



Regis A. MATZIE Executive Consultant, Former Chief Technology Officer

NUCLEAR – THE CLEAN ENERGY ALTERNATIVE: PROGRESS AND OPPORTUNITIES

Nuclear has a bright future and will be a major contributor to clean energy

Dr. Matzie graduated from the U.S. Naval Academy, where he obtained a B.S. in physics, and served in the U.S. nuclear submarine program for five years. He then attended Stanford University, where he earned an M.S. and a Ph.D. in nuclear engineering. His career has been devoted primarily to the development of advanced nuclear systems and advanced fuel cycles, and he is the author of more than 120 technical papers and reports on these subjects. Dr. Matzie completed 30 years of active and reserve service in the U.S. Navy in 1995, retiring with the rank of captain. Dr. Matzie was appointed Senior Vice President and Westinghouse Chief Technology Officer in October 2001 and was responsible for all Westinghouse research and development undertakings and advanced nuclear plant development. Previously, he was responsible for the development, licensing, detailed engineering, project management, and component manufacturing of new Westinghouse light water reactors. Dr. Matzie became a senior vice president in 2000, when Westinghouse Electric Company purchased the nuclear businesses of ABB. Earlier, he was vice president of nuclear systems for ABB Combustion Engineering (ABB CE) Nuclear Power in Windsor, Connecticut. Dr. Matzie is working in a number of professional associations and companies' boards (PBMR Board Technology Committee, ANS, ASME Innovative Technologies Institute LLC Management Committee). At the time of his retirement (2009), he became a member of the ANS Board of Directors.



Yulia V. CHERNYAKHOVSKAYA Deputy Director for Development Programmes, Marketing and Business-Development Department, Atomstroyexport JSC

NUCLEAR POWER: TECHNOLOGICAL INTEGRITY & SOUND ECONOMICS TAILORED TO NATIONAL GROWTH

The global triad “Energy security – Energy efficiency – Climate” is defined by the G8 to be on the top of agenda for the coming decades. Nuclear is the only sound solution given the competitive package of technological, institutional and regional components. Russian R&D and best practice in the nuclear field is a basis for an application of advanced technologies to meet the current demand and to anticipate the future needs.

Yulia graduated from Saint Petersburg State University in 2003 (Diploma magna cum laude), and at the same University obtained a Ph.D. in economics in 2006. She started her professional carrier in 2002 in the United Heavy Machinery JSC as the Manager of marketing and strategic planning. Since 2006 she has been working with Atomstroyexport JSC as the Deputy Director of the Marketing and Business Development Department. In this position Yulia Chernyakhovskaya is mainly responsible for strategy development of new projects in the nuclear and thermal power sector in Russia and abroad (EPC/BOO/BOT, PPP), corporate development (JV and alliances), financing schemes of development and risk evaluation, and research marketing, benchmarking, and analytical surveys preparation.



PICTURES OF CONFERENCE



WILL NUCLEAR ENERGY BECOME
A RENEWABLE SOURCE?
2nd Annual Conference on Nuclear Energy, Prague

PARTNERS

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Westinghouse

ACI ASI

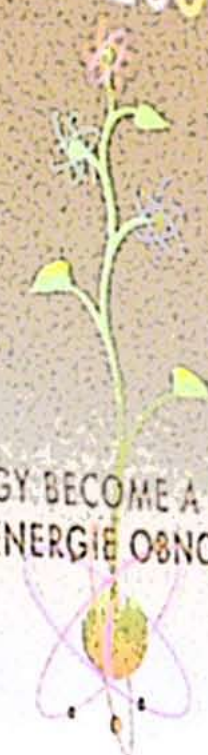
UJV Ústí nad Labem a.s.

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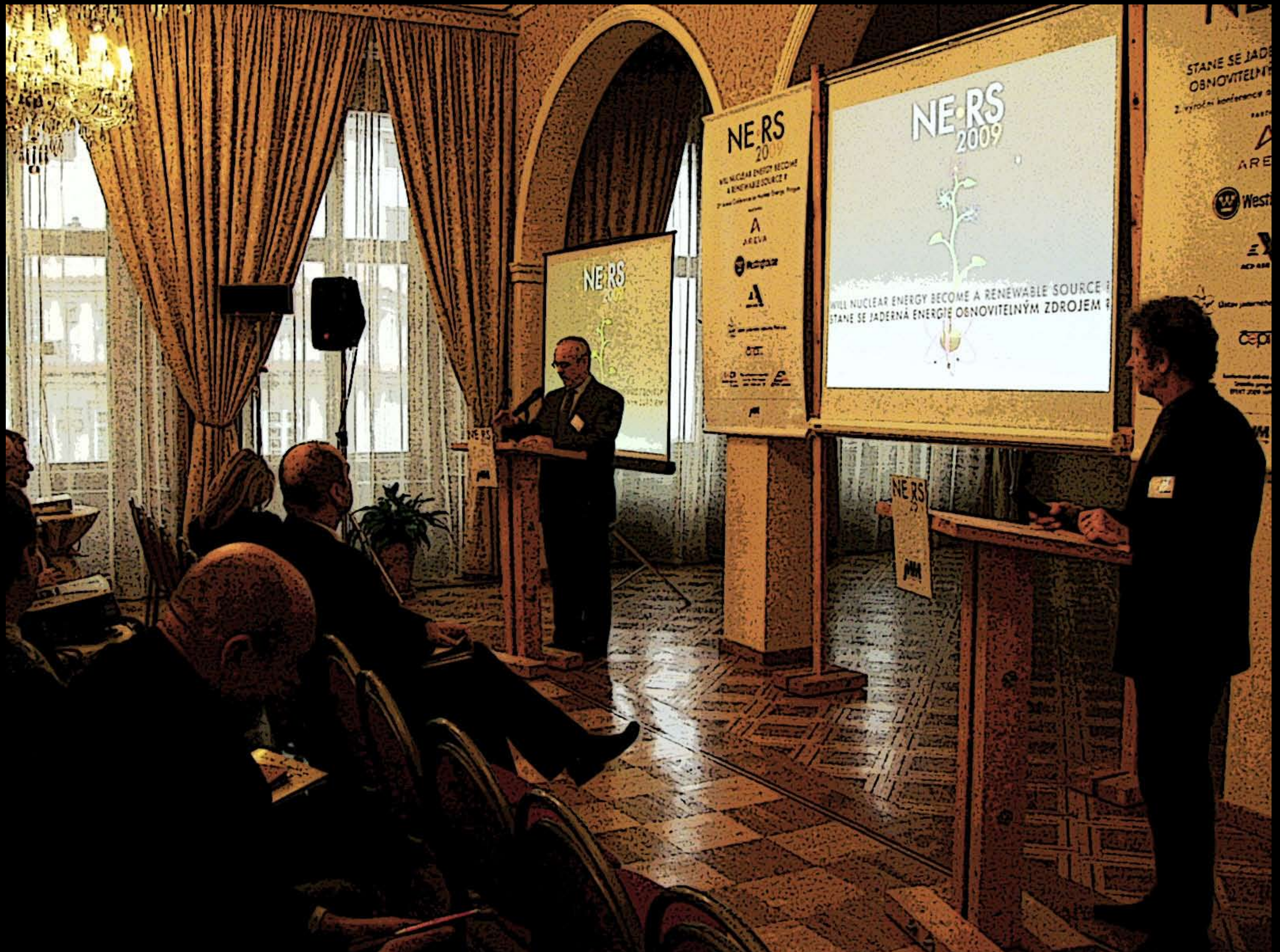
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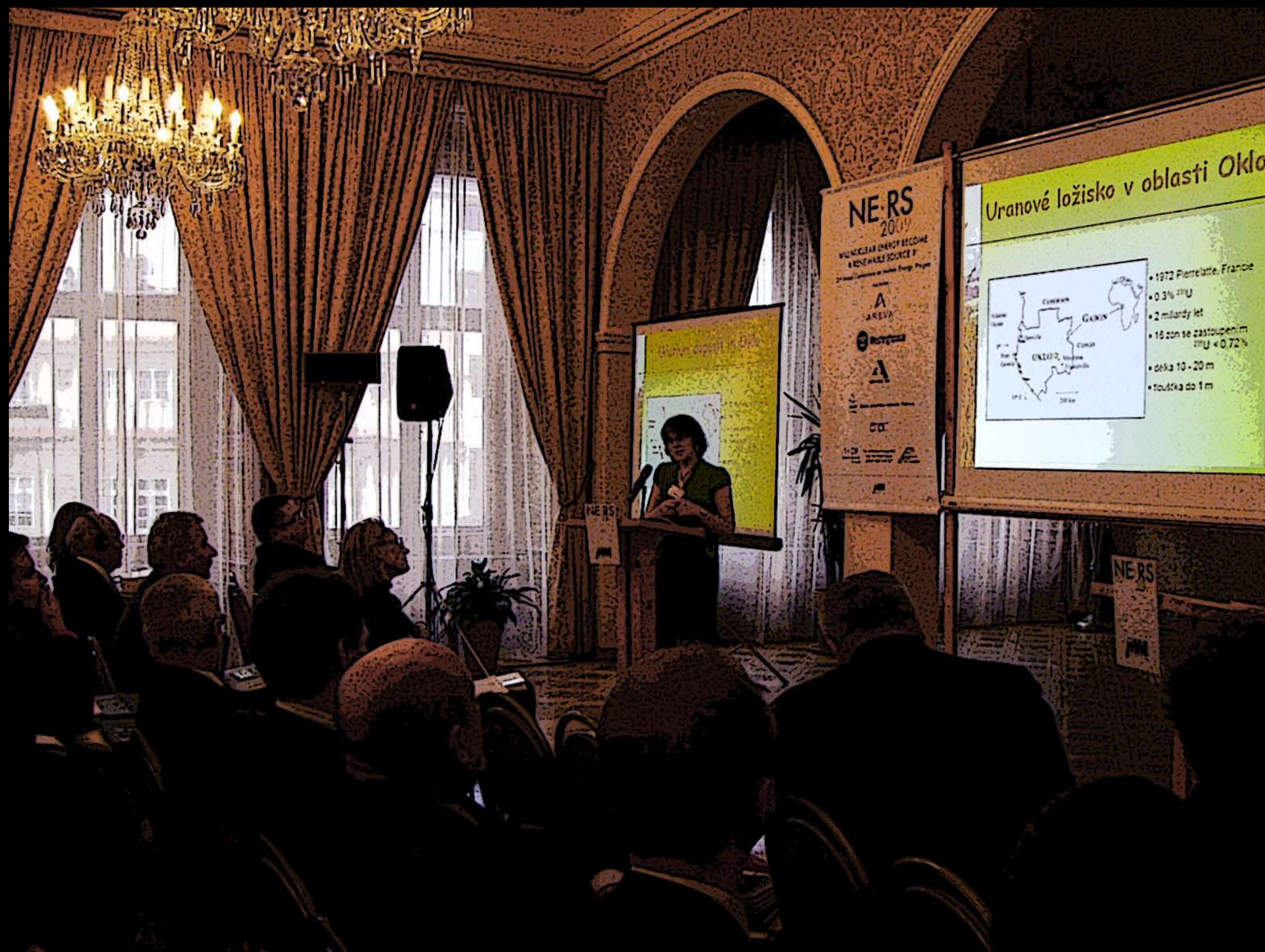


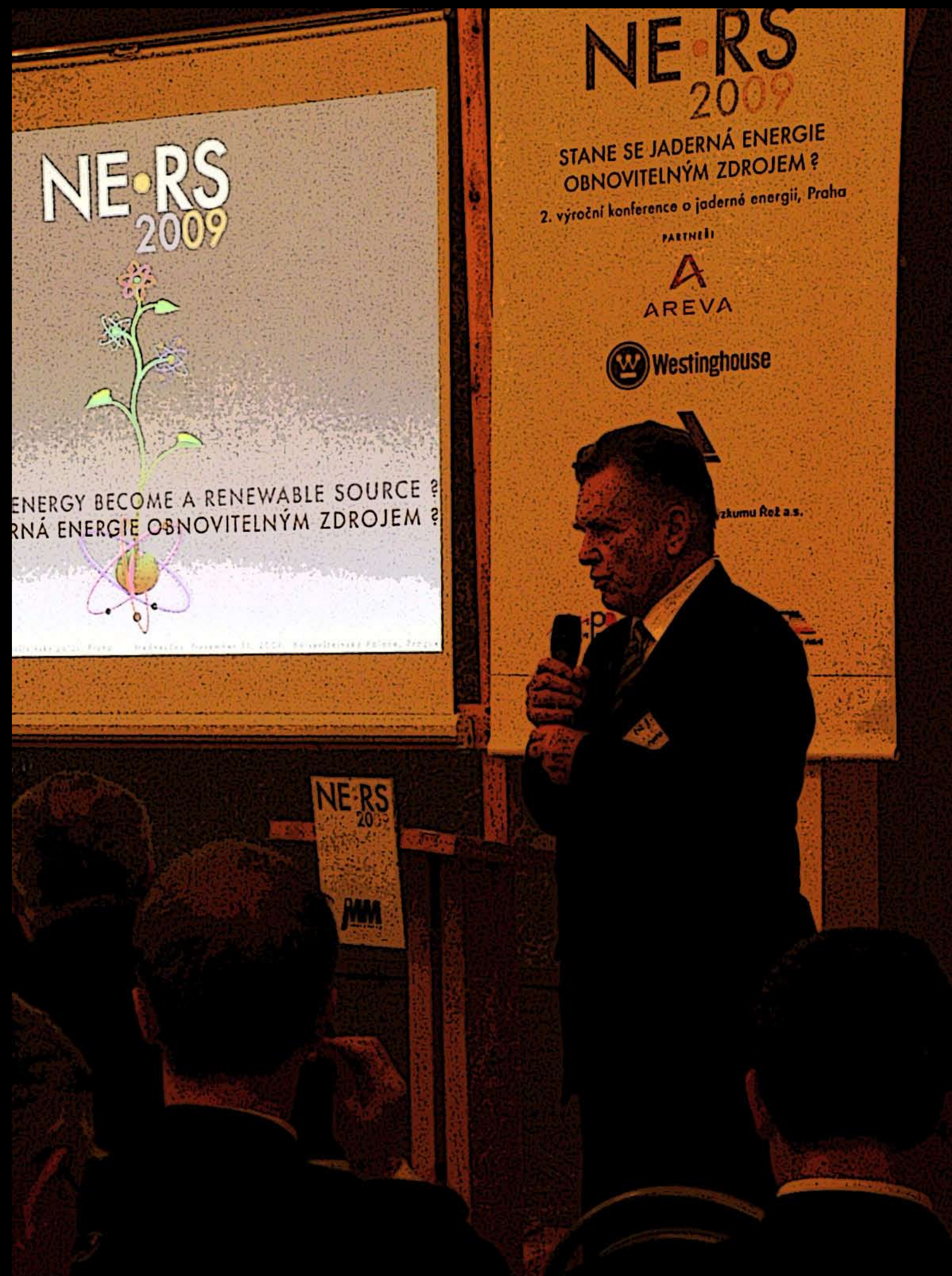




















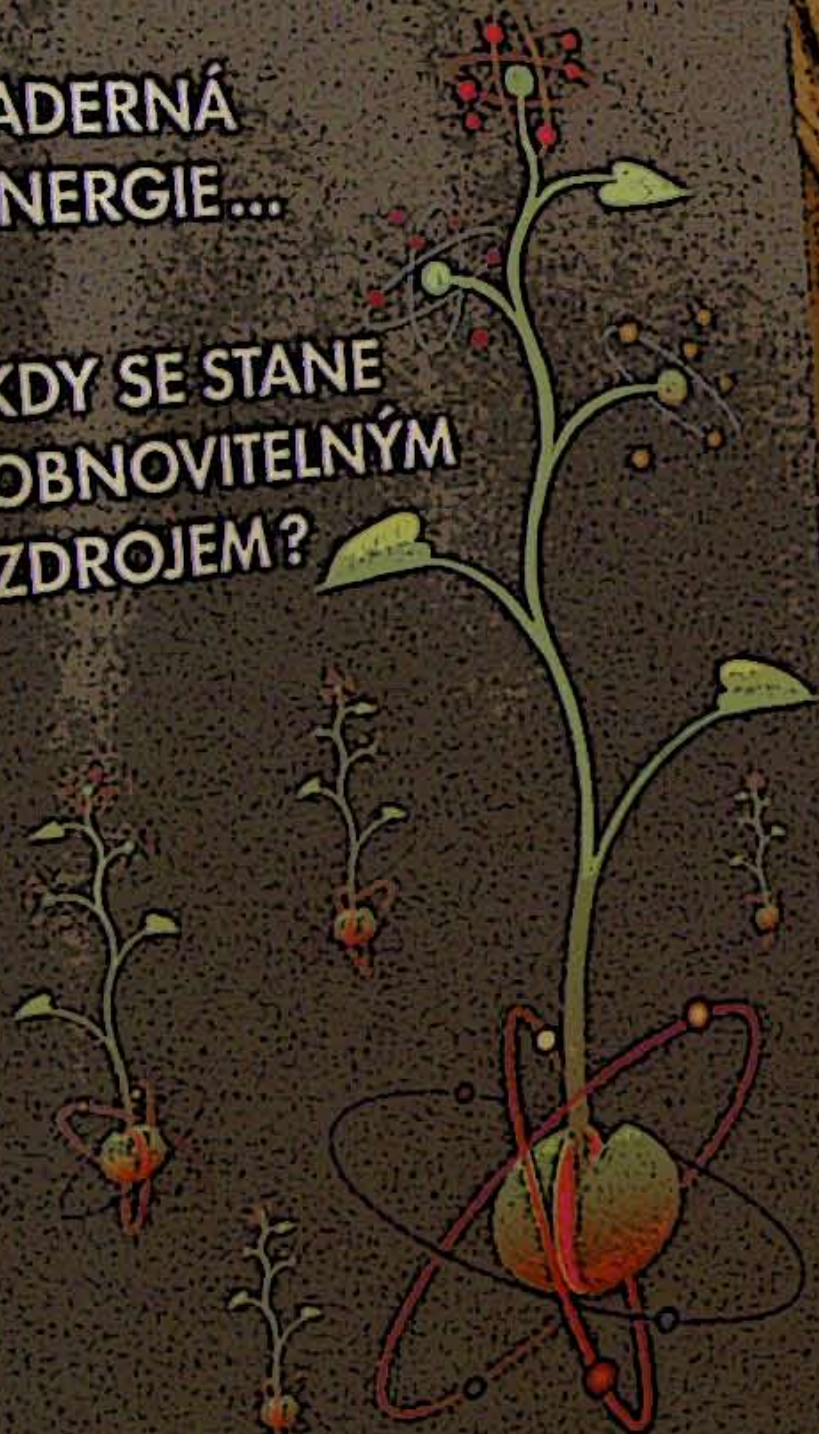




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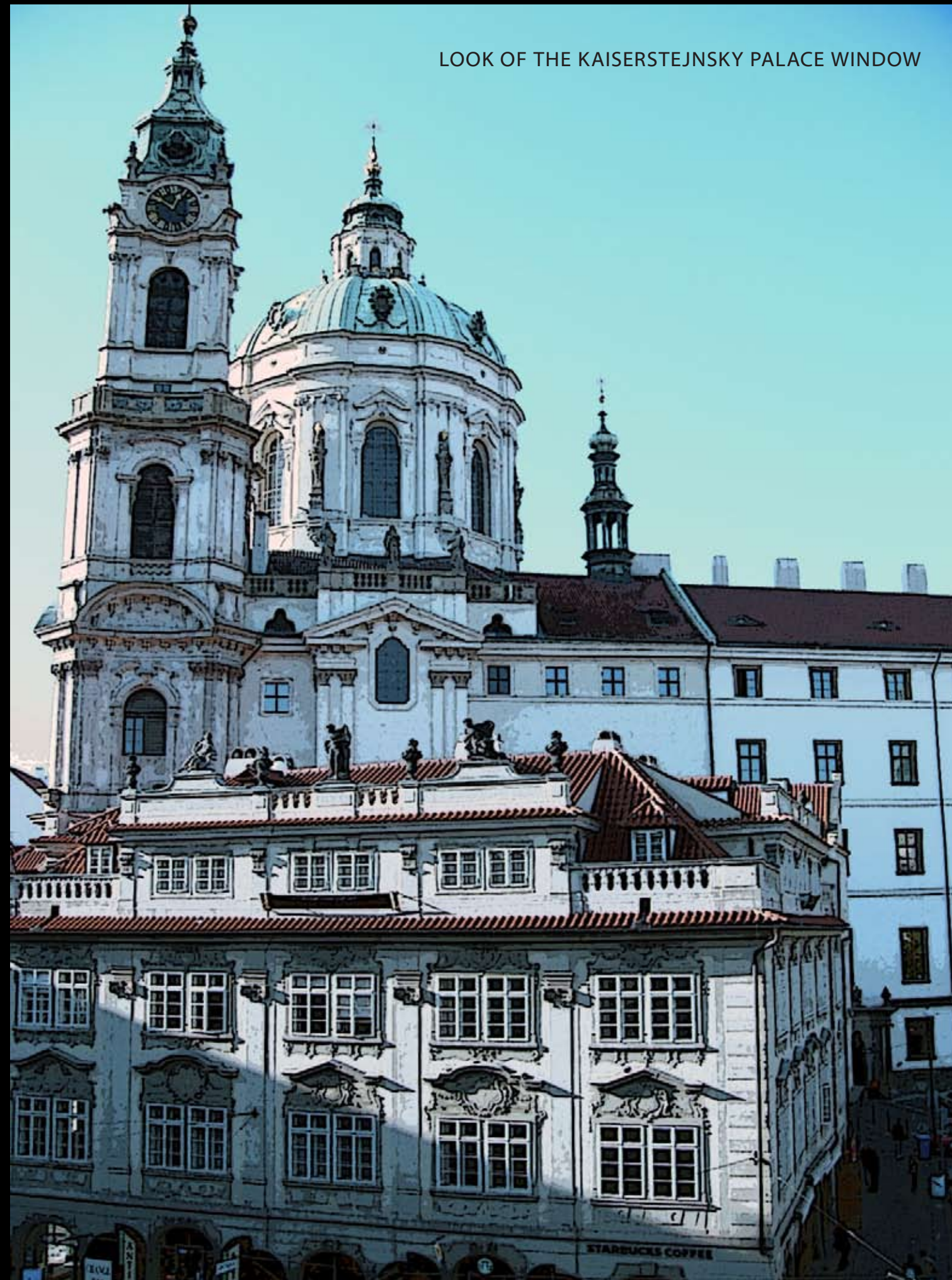
JADERNÁ
ENERGIE...

KDY SE STANE
OBNOVITELNÝM
ZDROJEM?



RMM

LOOK OF THE KAISERSTEJNSKY PALACE WINDOW



LOOKING FORWARD TO SEEING YOU AT THE **NERS 2010** CONFERENCE



HISTORY OF KAISERSTEJNSKY PALACE

1699–1720 Baroque reconstruction initiated by Sir Kaiserstein but completed by Petr Radecký.

1859 Monument of marshal Radecký was built on the square. Until 1918 the square carried his name.

1866 Václav Petzold, a hotelier, buys the palace and opens an exclusive restaurant. For the next hundred years it is called “U Petzoldů”.

1904–8 Famous opera singer Emmy Destinn, a partner of Enrico Caruso, rents an apartment here.

1977 Total reconstruction begins under the architects Zdeněk Pokorný and Jaroslav Bělský.

1981 The palace is registered as a UNESCO heritage site.

1997 Restitution procedures are completed and the palace is returned to its original owners.

<http://www.kaiserstejnskipalac.cz/Text/uvodni-stranka?MenuItemId=1>